ANALYSIS OF INCOME DISPARITIES IN JAMBI PROVINCE 2010-2017

Rian Destiningsih[1*], Rr. Retno Sugiharti[2], and Andhatu Achsa[3]
[1,2,3] Universitas Tidar, Magelang, Indonesia

Abstract

Economic growth does not reflect an increase in the welfare of society even though recorded in a high state. What occur now is economic growth is increase but disparities income is wider. The aims of this study to find out more about disparities income. This research used Williamson Index and Theil Entropy Index and focused in Jambi Province in term of time 2010 – 2017. Jambi Province's has unique and strategic location, which is near to the IMS-GT economic growth area (Indonesia, Malaysia, Singapore Growth Triangle). Because of the strategic location, Jambi Province should be able to achieve convergent conditions and become the highest Province in economic gain among others Province in Indonesia. However, in reality the economy state of Jambi province is opposite. The result of this research shows that Jambi Province's income disparity in 2010 - 2017 tends to decrease. But from the Williamson Index calculation, lifting income inequality in Jambi province in 2010-2017 is a high inequality, this can be concluded from the Williamson index value that's more than 0.5. The main causes of disparity income in Jambi Province is differences in the structure of the economy. The difference in economic structure occurs due to differences in natural resources and human resources. In the other side, based on Theil Entropy Index it was concluded that inequality in Jambi Province in 2010-2017 was classified as low, because the index value was close to 0.

JEL Classification: *D30, D31, D33*
Keywords: *Disparities, Theil Entropy Index, Williamson Index*

1. INTRODUCTION

Regional disparity is one of the problems that occurs in developing country. When economic growth increases, the income distribution should be evenly distributed, and public welfare can be guaranteed. But, if the rapid increase of economic growth is not in line with income distribution, it will create a gap or income disparities.

Disparity in economic development is something that can't be avoid. This driven by differences in natural resources and infrastructure owned by each region, although basically the development gap is inherent with the development process itself (Amirudin, 1992). Economic disparity is often used as an indicator of differences in average per capita income, between groups of income levels, between groups of employment, and between regions. Disparities in regional development occurs quite a lot in developing countries.

Jambi Province is one of the provinces on the island of Sumatra. The position of Jambi Province is quite strategic because it strictly near to the IMS-GT economic growth area (Indonesia, Malaysia, Singapore Growth Triangle). This advantage is evidenced by the GRDP of Jambi Province which occupies the 6th position, while in terms of GDP per capita Jambi Province occupies the 3rd position in Sumatra. The dominant GRDP contributing sector is the financial services sector, information and communication sector and the transportation and warehousing sector. In line with these conditions, poverty levels in Jambi Province is quite low, proved by position of poverty rate in the fifth place in the Sumatra region, after Bangka Belitung, Riau islands, West Sumatra and Riau.

* Corresponding author. *Email address*: riandestiningsih@untidar.ac.id

Nonetheless, the fact above wasn't accord with Gini Ratio. Gini Ratio was used to measure income inequality. The Gini Ratio ranges value from 0 to 1. Zero means there is no gap in the country or region or evenness is perfect, while number 1 means that the area has high inequality. If the Gini Ratio number is more than 0.5, it means that there is a large imbalance in the area, while if it is below 0.5 this means that the gap is small. The Gini Ratio in Sumatera shown in Table 1 below:

Table 1 Gini Ratio in Sumatera 2014-2016

Province	2014	2015	2016
Aceh	0,2257	0,2319	0,2313
Sumatera Utara	0,2229	0,2333	0,2215
Sumatera Barat	0,2319	0,2375	0,2299
Riau	0,2451	0,2528	0,2410
Jambi	0,2285	0,2507	0,2424
Sumatera Selatan	0,2771	0,2500	0,2417
Bengkulu	0,2472	0,2611	0,2479
Lampung	0,2410	0,2611	0,2528
Kep. Bangka Belitung	0,2104	0,1965	0,1910
Kep. Riau	0,2792	0,2528	0,2458

Source: Badan Pusat Statistik Nasional, 2017

From Table 1, it can be concluded that income inequality in Sumatra in high category of inequality (more than 0.5). Inequality of income in Jambi Province reach 4th ranks in Sumatra. Income inequality between regions is caused by the unequal distribution of human resources and natural resources. This inequality is an addition to the differences in the availability of supporting elements (such as facilities and infrastructure) in human development as well as differences in investment allocations which have implications for emerging lagging regions (Darzal, 2016).

2. LITERATURE STUDY

According to Kuncoro (2006), differences in the level of economic progress between regions that are excessive can cause adverse effects (backwash effects) dominating the beneficial effects (spreads effects) on regional growth, in this case resulting in a process of imbalance. Economic factors who have strength in the market, normally will tend to increase rather than decrease, but resulting in disparities between regions. Arsyad (2010) explains in more detail about the factors that cause the emergence of backwash effects, such as:

1. The pattern of population movements (migration) to more developed areas. In general, migrants are a group of people who are relatively young, have a high morale and work ethic, and a better level of education than residents who choose to stay in poor areas. The displacement of the population will result in the scarcity of productive labor needed to develop economic sectors in these poor areas.
2. Capital flow pattern. There are three things that cause poor areas to have difficulty in developing the market for their industrial products which results in slow economic development in the area. First, the lack of availability of capital in poor areas, second, the tendency that capital is more secure and able to generate higher income in more developed regions, and last patterns of trade dominated by industry in more developed regions.
3. Better transportation networks. This condition happen in more developed areas then results in more efficient production and trade activities. Spread effects or beneficial effects often in the form of increasing demand for products from poor regions, which usually take the form of industrial raw materials which needed by developed regions. Products from poor regions usually was the major economic

activities, such as agricultural products, and home industry products. Although there are beneficial effects that can drive development from poor regions, spread effects are usually smaller than backwash effects. This makes development in more advanced regions always better so that poor regions will find it difficult to catch up with development. This encourages widening disparity and there is a gap in welfare between regions (Arsyad, 2010). Income disparity describes the difference in income distribution of people in an area or region at a certain time period. With differences in the rate of population growth, human resources, natural resources, unemployment and uneven investment, the development between regions is different and economic growth in increasing the welfare of the population in the regions is not the same.

Income disparity occurs due to several factors. Kuncoro (2004) and Sjafrizal (2016) explain the causes of disparities in economic development such as:

1. Concentration of Regional Economic Activities
   The high concentration of economic activity in certain regions is one of the factors that causes income disparity between regions. The high concentration of economic areas tends to grow rapidly. Whereas regions with low economic concentration levels tend to have lower levels of development and economic growth. This is because there are differences in natural resources, limitations such as limited infrastructure, and lack of human resources which causes low levels of income for the community.
2. Investment Allocation
   Differences in investment allocations make growth between regions different. Investors tend to invest in more developed regions. On the contrary, the low investment in less developed regions makes economic growth and the level of people's income per capita in the area low because there are no productive economic activities.
3. Differences in Natural Resources between Regions
   Economic development in rich natural resources areas will be more advanced and the community will be more prosperous than in areas that are resource-poor. In the sense that natural resources are seen as the initial capital for development, which in turn must be developed in addition, other important factors are technology and human resources. The increasing importance of mastering technology and increasing human resources, endowment factors will gradually become irrelevant.
4. Differences in Demographic Conditions between Regions
   Such differences, for example in terms of number and population growth, population density, education, health, community discipline and work ethic. Regions with good demographic conditions have higher productivity levels, so that they can increase investment and encourage economic growth, and vice versa.
5. Lack of a smooth inter-regional trade
   The lack of inter-regional trade is an element in creating regional economic disparities. The lack of intra-trade is caused by limited transportation and communication. The flow of goods and services between regions affects the development and economic growth of a region. For example, due to transportation limitations, it is difficult for regions to get raw materials for the production process so that the economic activities of a region do not operate optimally.

Tambunan (2003) explain about Kuznets hypothesis known as "Reverse U Hypothesis". This hypothesis is produced through an empirical study of the growth patterns of a number of countries in the world. In the early stages of economic growth, there is a trade-off between growth and equity. This pattern is due to the growth in the early stages of development tending to focus on the modern sector of the economy, which at that time was small in the absorption of labor. Disparities are increasing because the disparity between modern and traditional sectors is increasing. This

increase occurs because developments in the modern sector are faster than traditional sectors.

But in the long run, when economic conditions reach maturity and assuming free market mechanisms and the mobility of all production factors between countries without the slightest obstacle or distortion, the difference in the rate of output growth between countries will tend to shrink along with the level of per capita income and the average growth rate are increasingly high in each country, which ultimately eliminates disparities (Figure 1).

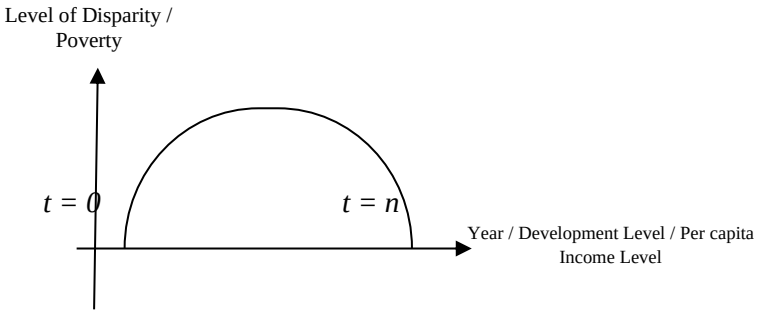

Figure 1 Kuznet Hypothesis Curve
Source: Tambunan (2003)

Some of previous study about disparities comes from several researcher. Wang (2016) in the research entitled Analysis on Regional Disparity in China and the Influential Factors analyzed regional income disparities in China from 1978-2014. The dependent variable of the research is regional economic growth and regional disparity, while the independent variables are government expenditure, infrastructure level, urbanization and education. With the Theil Entropy Index approach with multiple linear regression analysis tools. The results of the regression analysis of government expenditure, the level of infrastructure, urbanization and education have a significant impact on increasing economic growth in the Eastern Region and decreasing regional disparity in China.

Caska & Riadi (2012) in his research entitled Growth and Disparity of Inter-Regional Economic Development in Riau Province 2003-2005. The research variables are development inequality as the dependent variable and economic growth and GDP as independent variables. Data were analyzed by Quadrant Systems, Williamson Index, Theil Entropy Index and proof of the Kuznets Hypothesis. From the results of the study, it can be concluded that only Pekanbaru City in the First Quadrant (highest growth and income), areas categorized as high but low income are Pelalawan, Kuantan Singingi, Indragiri Hulu and Siak District, Indragiri Hilir, Rokan Hulu and Kampar District can be categorized high-income areas but low growth, while low-categorized areas are Rokan Hilir, Dumai and Bengkalis. The Williamson Index and Theil Entropy Index give different results. The results of the Williamson Index analysis, economic growth has an effect on increasing disparity in Riau Province, the results of the Energy Index analysis are just the opposite. Kuznets's hypothesis is not proven in Riau Province.

Ginting (2015) in his research entitled The Effect of Inter-Regional Development Disparities on Poverty in Indonesia 2004-2013. Examining the influence of inter-regional development disparity on poverty in Indonesia and analyzing the influence of inter-regional development disparity variables, GRDP, investment and agglomeration on poverty reduction in Indonesia. By using qualitative and quantitative approaches and data from 2004-2013, the results of his research show that the level of poverty in Indonesia has decreased in line with the declining disparity in development between regions. This decrease in disparity is indicated by the decreasing Williamson Index for western and eastern Indonesia. The results of quantitative analysis with data panel regression show that the variables of development disparity and agglomeration have a

positive and significant effect on poverty. While the GRDP and investment variables have a negative and significant effect on poverty in Indonesia.

Priyambodo, Luthfi, & Santoso (2015) in his research entitled Analysis of District and City Income Disparities in East Java Province. Research in this district / city in East Java uses secondary GDP data to see growth patterns, how much the level of disparity occurred, and the leading sectors in developed regions in 2006-2011 with quantitative descriptive analysis tools. Of the 29 districts and 9 cities, there are 22 districts and 1 city is relatively underdeveloped. The level of income disparity, using Williamson index analysis (Vw), the disparity between regions has increased while Theil Entropy Index analysis (Td) income disparity has decreased.

Research from Aidar & Syahputra (2015) entitled Analysis of Regional Income Disparities in Aceh Province using secondary data in the form of times series from 2002-2011. Her research using a quantitative and qualitative analysis model with Theil Entropy Index approach to measure the level of disparity between districts / cities in Aceh Province which grouped into three regional groups. The results showed that the difference in income per capita between districts/cities in Aceh Province was relatively high. Theil Entropy Index is highest in the Northeast region of Aceh, followed by the Central Aceh region, and the smallest in the Southwest region.

Research from Aminah (2017) entitled Analysis of Interregional Income Disparities in Jambi Province 2011-2015 also analyze using secondary data from 2011-2015, then the data is explained quantitively by using the Theil Entropy Index approach, GRDP data and population. The results of the research obtained regionally, the development rate of GDP experienced average fluctuations in 2011-2015 of 6.79%. In the same period the highest average economic growth rate was Sarolangun District 7.43%. Theil Entropy Index during the period of 2011-2015 averaged 0.426, this value indicates a medium size disparity.

From the explanation above, disparity refers to the relative standard of living of the entire community. Disparities can be distinguished by region, region, income, and level of economic progress between regions. This disparity is caused by factors, including: different levels of development between regions and also types of economic development. In addition, the disparity between regions is due to the presence of economic actors who have market power which can increase disparity between regions. If the majority of the results of economic development in a region can be enjoyed by a large proportion of the population or community, then this condition is said to be that the level of income in the region is balanced. However, if the opposite is true, that is, most of the income is only enjoyed by a small portion of the population or the community, it is said that there is an imbalance or disparity in income distribution. This research will analyze disparities in Jambi Province in order to classify the disparities level in that area by using Williamson Index and Theil Entropy Index.

3. RESEARCH METHODOLOGY

3.1 Sources and Data Collection Techniques

Data collection techniques are the most strategic step in research, because the main objective of the research is to obtain data. In this case the data collection technique used is documentary study by collecting data and analyzing documents, both written documents and drawings, articles, web sites and previous studies that are related to the problem under the topic.

The object in this study is Jambi Province. The data used in this study are Jambi Province population data in 2010-2016, GRDP and Jambi Province Per Capita GRDP at Constant 2010 Prices (ADHK) 2010-2017, collected from the publication of Jambi Province BPS in 2010-2017.

3.2 Data Analysis Methods

The analysis used in this study are as follows:

3.2.1 Williamson Index

Theoretically the Williamson Index serves as a disperse measurement tool in descriptive statistical methods. The Williamson index is used to measure regional income per capita disparity. Williamson Index is an approach to measure the degree of disparity between regions based on per capita GRDP. This formula is basically the same as the usual coefficient of variation (CV) where the standard deviation is divided by the average (BAPPENAS, 2015). To find out the income distribution between regions in Jambi Province can be analyzed using the Williamson Index introduced by Jeffrey G. Williamson, which is one measure to measure the level of regional disparity or income disparity in a region. In its calculation, the Williamson Index uses Gross Regional Domestic Product (GRDP) per capita and population as basic data Sjafrizal (2016). The Williamson Index formula is as follows:

$$CVw = \frac{\sqrt{\sum_{i=0}^{n} (yi-y)^2 (\frac{f_i}{n})}}{y} \quad (1)$$

Notes :
yi : Per capita GRDP in districts / cities
y : Provincial per capita GRDP
fi : population in regency / city i
n : population in the Province

The size of the Williamson Index is positive, the greater the value, the greater the level of disparity. Williamson Index numbers range from 0 to 1 where if close to 0 is evenly distributed, whereas if approaching 1 is more lame. If the IW value is less than 0.3, it means that regional economic inequality is low, the IW value between 0.3 to 0.5 means that the regional economic inequality is moderate, and if the IW value is more than 0.5, it means high regional economic inequality.

3.2.2. Theil Entropy Index

According to Kuncoro (2006), the concept of Theil Entropy Index is basically an application of the concept of information theory in measuring economic disparity and industrial concentration. Theil Entropy Index is a spatial concentration index that provides a measure of the degree of concentration of spatial distribution in a number of regions and sub-regions within a country and between sub-units of regions in sub-regions at a point in time. The formula of Theil Entropy Index is:

$$Td = \sum \left(\frac{y_j}{Y}\right) X \log \left\{ \frac{\frac{y_j}{Y}}{\frac{x_j}{X}} \right\} \quad (2)$$

Notes:
yj : District and city per capita income j
Y : Average provincial per capita income
xj : Population of regency and city j
X : Total population of the province

The lower Theil Entropy Index value means that there is a low disparity, and vice versa. The greater the value of Theil Entropy Index, the greater the disparity that occurs. Conversely, the smaller the value of Theil Entropy Index, the more evenly distributed development occurs.

The use of Theil Entropy Index as a measure of disparity has certain advantages. First, this index can calculate disparities in regions and between regions at once, so that coverage becomes wider. Second, using the Theil Entropy Index can also calculate the contribution (in percentage) of each region to the overall regional development disparity so that it can provide important policy implications. Another advantage is that Theil Entropy Index can identify the structure of disparity, that is whether the regional disparity occurs between regions (within) or within (concerned) (Sjafrizal, 2016).

4. RESULTS

The size of the inequality among regencies / cities provides an overview of the conditions and regional developments in Jambi Province. By using Williamson Inequality index And Theil Entropy Index provides a better picture about disparities of GRDP per capita.

Williamson's inequality index numbers are getting smaller or close to zero indicating that inequality is getting smaller as well or in other words more evenly distributed, and if getting higher from zero shows the widening inequality. The larger theilex entropy index means to show an increasingly large inequality, if the index gets smaller then the inequality will be even lower or in other words more evenly distributed. This is in line with the Williamson inequality index. Theil entropy inequality index does not have an upper or lower limit, only if the greater the value the more lame and smaller the more evenly distributed.

Table 2 Williamson Index and Jambi Province Theil Entropy Index 2010-2017

Year	Indeks Williamson	Indeks Entropi Theil
2010	0,534	0,114
2011	0,521	0,112
2012	0,509	0,111
2013	0,502	0,111
2014	0,481	0,109
2015	0,420	0,101
2016	0,391	0,098
2017	0,403	0,102
Average	0,470	0,107

Table 2 shows the inequality index of GDP per capita between districts / cities in Jambi Province during the period 2010-2017, which is an average of 0.470. The Jambi Province Williamson Index for 2010-2017 tends to decrease every year. To find out the level of inequality of an area other than using the Williamson Index (IW) can also use the Theil Entropy Index. Basically. Theil Entropy Index is the application of information theory concepts in measuring economic inequality and industrial concentration (Kuncoro: 2004). From the analysis results, the Theil entropy index value for the period of 2010-2017 is 0.108, see table 2. As in the Williamson index, Theil's entropy index also tends to decrease. There are several factors that influence inequality in Jambi Province, namely income, education, and accessibility.

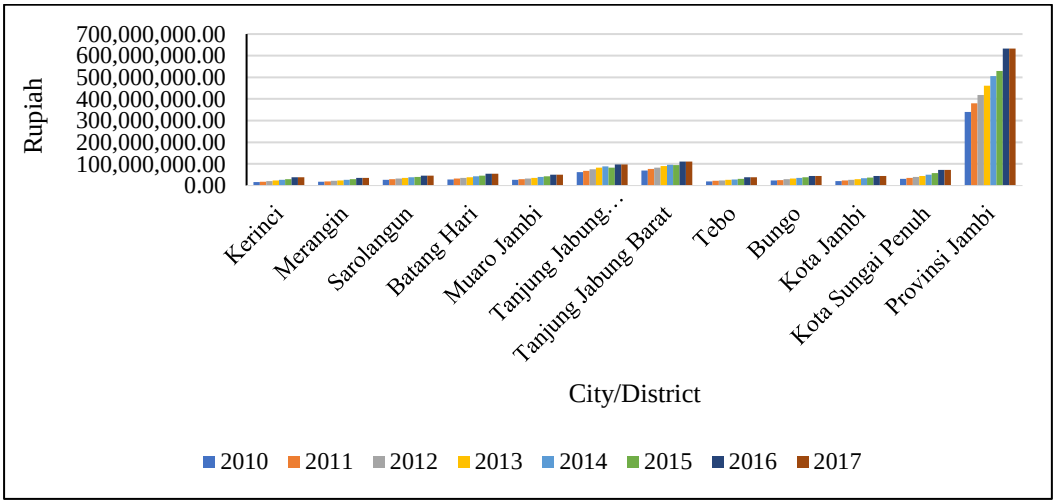

Figure 2 Per capita regency / city GRDP in Jambi Province 2010-2017

In terms of income, the GDP per capita of regencies / cities in Jambi Province in 2010-2017 tends to increase every year. This indicates that welfare or income in regencies / cities in Jambi Province has increased. In terms of natural resources such as plantations, petroleum, natural gas and coal. There are several districts / cities in Jambi Province that have oil and gas natural resources such as in Tanjung Jabung Barat, Tanjung Jabung Timur, Batang Hari, Muaro Jambi, Sarolangun, Tebo and Jambi City.

Table 3 Mining Production According to Types of Goods Jambi Province Year 2010-2015

Year	Crude Oil (000 Barel)	Natural Gas (MMBTU)	Coal (Ton)	Iron ore (Ton)
2010	6.588	17.410	3.876.280	317.300
2011	6.403	16.090	7.224.490	434.182
2012	6.246	17.044	9.667.160	159.000
2013	4.326	11.872	4.012.600	-
2014	8.574	86.997.278	7.663.283	-
2015	7.622	84.745.300	4.604.967	-

Source : Badan Pusat Statistik Provinsi Jambi (2016)

Mining production in Jambi Province is dominated by crude oil, natural gas and coal (Table 3). However, a significant increase occurred in natural gas and coal production in 2014 and 2015. This shows the unpredictability of mining production, as well as the price. Darzal (2016) said that in the past few years the world oil and gas prices fluctuated, which had an impact on soaring oil and gas added value as well as the value of the GDP of the ADHB in areas that have oil and gas. Based on comparisons according to the three main sectors, the choice of working in the agricultural sector still dominates the labor market in Jambi Province with a percentage of 49 percent in 2016, which is followed by the trade sector with a percentage of 18 percent, and a social service sector of 15 percent.

Based on the level of education, especially the highest diploma in the regency / city in Jambi Province is classified as good. This is based on the percentage of 15-year-old residents who have the majority of the population having an upper junior high school diploma as much as 50.03 percent of the population aged 15 years and over in Jambi Province in 2010-2016. The population of 15 years and over who has the most S2 / S3 diplomas in Jambi City is ranked first and Batanghari Regency is ranked second, each of which is 3,468 residents and 487 residents. Whereas the population of 15 years and above who has the most S1 diplomas is in Jambi City as the first rank and Bungo Regency as the second rank, each with 37,172 residents and 7.864.

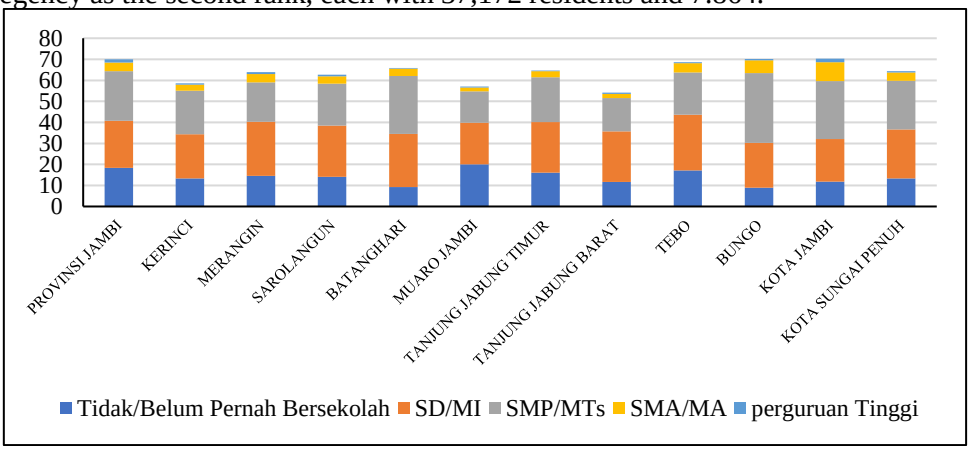

Figure 3 Persentase Penduduk 15 Tahun Ke atas Menurut Ijazah Tertinggi Yang Dimiliki di Kabupaten/Kota Provinsi Jambi Tahun 2017

The majority of workers in Jambi province finish their education to the Junior High School. Less worker able to finish their education up to High School, moreover undergraduate. This low education state is one of the reasons of higher disparities level in Jambi Province. We can avoid that when a worker has higher education level the welfare level and income disparities surely getting smaller.

5. DISCUSSION

Based on the Williamson Index in Jambi Province in 2010-2017 it was concluded that the inequality is classified as high because the index value is more than 0.5 with a tendency to decrease the index value every year. The factors causing income disparity in Jambi Province are differences in economic structure caused by differences in natural resources and human resources. Related to natural resources, for example there are several districts / cities in Jambi Province that have oil and gas natural resources. Related to human resources, for example the productive age population who works is dominated by elementary school education down, this is in line with the data of productive age population who have a diploma which is also dominated by elementary education and below. In the other hand, based on the Theil Entropy Index in Jambi Province in 2010-2017 it was concluded that inequality is classified as low because the indigo value is close to 0 with the tendency of the index to fall every year. This is evidenced by the increasing value of GDP per capita every year

6. CONCLUSION

As a public policy maker, measuring disparities must be precise and careful. Each region has different characteristic, so the established policies must cover all differences between regions. which can be done by the government, especially the Jambi provincial government, such as increased synergy between the central and regional governments related to the education sector by monitoring and evaluating the implementation of 12-year compulsory education so that the population of Jambi Province can be more competitive in welcoming employment opportunities that are increasing in Jambi Province each year. Besides, we have to remember that infrastructure with guaranteed quality and quantity can have a multiplier effect on various fields. Jambi Province should make improvements in terms of infrastructure so that investors from both domestic and foreign countries are increasingly interested in investing their capital. For example, with capital invested, it will reduce unemployment and poverty in the long run. By knowing the truly condition of income disparities in Jambi Province, we can identified determining factor of disparities in further research.

References

Aidar, N., & Syahputra, R. (2015). Analisis Disparitas Pendapatan Regional di Provinsi Aceh. *Jurnal Ekonomi Dan Kebijakan Publik*, *2*(1), 56–68.

Aminah, S. (2017). Analisis Disparitas Pendapatan Antar Wilayah Di Provinsi Jambi (Pendekatan Entropy Theil Indeks). *Jurnal Ilmiah Universitas Batanghari Jambi*, *17*(2), 1–10.

Amirudin, A. (1992). *Analysis of Regional Growth and Disparity The Impac Analysis of the INPRES Project on Indonesia Development*. University of Pennsylvania.

Arsyad, L. (2010). Masalah Distribusi Pendapatan dan Kemiskinan di Indonesia.

BAPPENAS. (2015). *Analisis Kesenjangan Antar Wilayah - Seri Analisis Pembangunan Wilayah Provinsi Jawa Tengah*. Semarang. Retrieved from http://simreg.bappenas.go.id/document/Publikasi/DokPub/03. Analisis Provinsi

Jawa Tengah 2015_ok.pdf

Caska, C., & Riadi, R. (2012). Pertumbuhan Dan Ketimpangan Pembangunan Ekonomi Antar Daerah Di Provinsi Riau. *JIP (Jurnal Industri Dan Perkotaan)*, *12*(21). Retrieved from http://ejournal.unri.ac.id/index.php/JIP/article/view/573

Darzal, D. (2016). Analisis Disparitas Pendapatan Dan Faktor-Faktor Yang Mempengaruhinya Di Provinsi Jambi. *Jurnal Perspektif Pembiayaan Dan Pembangunan Daerah*, *4*(2), 131–142.

Ginting, A. M. (2015). Pengaruh Ketimpangan Pembangunan Antarwilayah Terhadap Kemiskinan Di Indonesia 2004-2013. *Journal Kajian*, *20*(1), 45–58. https://doi.org/https://doi.org/10.22212/kajian.v20i1.569

Kuncoro, M. (2004). *Pertumbuhan Ekonomi Dan Ketimpangan Antar Wilayah dalam buku Otonomi Dan Pembangunan Daerah*. Jakarta: Erlangga.

Kuncoro, M. (2006). *Ekonomika Pembangunan : Teori, Masalah, dan Kebijakan* (4th ed.). Yogyakarta: UPP STIM YKPN.

Priyambodo, K. D., Luthfi, A., & Santoso, E. (2015). Analisis Disparitas Pendapatan Kabupaten dan Kota Di Provinsi Jawa Timur. *E-Journal Ekonomi Bisnis Dan Akuntansi*, *2*(1), 28–36.

Sjafrizal, S. (2016). *Perancanaan Pembangunan Daerah Dalam Era Otonomi*. Jakarta: Rajawali Pers.

Tambunan, T. (2003). *Perekonomian Indonesia Beberapa Masalah Penting*. Jakarta: Ghalia Indonesia.

Wang, F. (2016). Analysis on the Regional Disparity in China and the Influential Factors. *American International Journal of Humanities and Social Science*, *2*(4), 94–104. Retrieved from www.cgrd.org